Volume I

Section 5.8

MATERIALS ACCEPTANCE AND CERTIFICATION SYSTEM (MAC)

5.8.1   PURPOSE

To describe the necessary activities for Florida Department of Transportation (Department) personnel for the Materials Acceptance and Certification system (MAC).

5.8.2   AUTHORITY

Sections 20.23 (3)(a) and 334.048 (3) Florida Statutes

5.8.3   REFERENCES

Sections 334.044(2) and 334.044(10)(a) Florida Statutes

Code Of Federal Regulations (CFR), Federal-Aid Policy Guide (FAPG), Subchapter G - Engineering and Traffic Operations, Part 637 - Construction Inspection and Approval, Subpart B - Quality Assurance Procedures for Construction

FDOT Data Governance Policy (001-325-064-b)

Florida Department of Transportation Standard Specifications for Road and Bridge Construction

5.8.4   SCOPE

Primary Offices affected by this procedure include the State Materials Office (SMO), the State Construction Office (SCO), District Construction Offices (DCO), District Materials and Research Offices (DMRO), and Construction Offices (CO) or Operations Centers (OC).

5.8.5   GENERAL INFORMATION

MAC is the system of record for reporting and retaining materials related data for the Materials Acceptance Program, including acceptance for construction projects. The following data is reported in MAC:

(A)   Acceptance Program Sampling and Testing at the points of production,

distribution, and use
(B)   Certifications for acceptance of materials received at the point of use
(C)   Independent Assurance Program evaluations
(D)   Mix Design submittal and verification
(E)   Production Facilities and inspections
(F)   Qualified Laboratories and evaluations

MAC is designed for direct data entry of raw data. This design ensures that users do not need to document results on a worksheet before entering the results in the system. Personnel performing sampling and testing are not required to document results on worksheets except for Earthwork Records System (ERS) data. If the company uses worksheets, they must include the required information in **Specifications Section 105** for Department acceptance samples and be retained according to **Specifications** and accrediting agency requirements.

During periods when the network or other services make MAC unavailable, it is permitted to document the results on designated worksheets and enter them into MAC when the system becomes available. The worksheets must meet the requirements of **Specifications Section 105**.

Data for the electronic ERS as defined in **Specifications Sections 120, 145, 160, 200 and 548** and **Materials Manual 2.3 Volume 1** is required to be direct data entry except for contracts that have been designated as a remote contract by the DMRO or during periods when MAC is unavailable.

On ERS remote contracts and periods where the system is not available, ERS testing data must be documented on the specific forms found in the Department approved forms for ERS (**Form No 67-020-27** (QC) as described in **Materials Manual 2.3 Volume 1**.

Data Governance ensures that an organization's data is formally managed to facilitate the effective use of information for strategic planning and key decision-making. The Department's goal is to improve data reliability and simplify data sharing across the agency to have readily available and accurate data to make informed decisions. Details regarding this effort can be found in the Department's **Data Governance Policy (001-325-064-b)**. This policy establishes data governance as a priority for the Department. MAC, as an enterprise application, is governed by the Department's data governance policy.

5.8.6   ACCESS

To access MAC for any function other than read only reports, users need to establish a Department Access account. Users needing access to other FDOT applications that require an FDOT User ID Account must use that same account to access MAC. The account must have network access. An FDOT User ID account is established through the appropriate District or Central Office of Information Technology unit.

Some users in the Central Office (CO) domain have an FDOT User ID account that has Resource Access Control Facility (RACF) mainframe access only. These users need to contact the MAC Support Team for assistance in requesting MAC access with the appropriate roles.

For information on requesting an FDOT User ID account, visit the Office of Information Technology's website:
http://www.fdot.gov/cybersecurity/Default.shtm.

Users who do not need a FDOT User ID account can create an Internet Subscriber Account (ISA). An ISA can be created from the FDOT Sign-In Portal used by MAC and other Department applications.

For information on creating an ISA and requesting MAC roles, visit the SMO MAC website:
 MAC Internet Subscriber Account Instructions.

5.8.7   SYSTEM MAINTENANCE

5.8.7.1   SAMPLE AND TEST MAINTENANCE

Sample maintenance includes, but is not limited to, entering samples in a timely manner, reviewing samples for correctness and completeness, and revising or deleting incorrect sample information once the sample is processed.

Department samples (Verification, Independent Verification, Resolution) are required to comply with the sample data entry time requirements as stated in **Specifications Section 105**. Daily is defined as within a 24-hour period. This period is applicable to each stage of the sample life cycle. Detailed instructions can be found in the ***MAC Project Sample User Manual***.

Users with the role of Project Administrator (PA) for project samples or FDOT Verifier for Program samples are required to review all samples for accuracy and completeness before finalizing the sample. If errors are detected, it is the responsibility of the users to return the sample to the company that needs to make the correction. Users in the company of the

sample are responsible for correcting data entry errors. Users must be in their company roles to revise sample or test data.

Some errors, such as an incorrect MAC key field, cannot be corrected by returning the sample. Key fields include, but are not limited to contract, financial project ID (FIN), MAC Material, MAC Spec, category, type, sample purpose or sample level. The MAC system allows some key fields to be revised, but it does not work. Samples with incorrect key fields must be reentered with the correct key fields and the incorrect samples deleted by the appropriate District Application Coordinator (DAC) or a system administrator.

District Application Coordinators (DACs) are responsible for returning samples to users for corrections when the return option is not available to the PA, and for deleting samples that were incorrectly entered in MAC (duplicate samples, etc.).

5.8.7.2 SYSTEM MAINTENANCE

System maintenance includes, but is not limited to, maintaining entries for qualified laboratories, production facilities, Final Project Materials Certification Review, creating and maintaining MAC Specs, assigning project specific MAC Specs to Job Guide Schedules (JGS), adding users to companies, and assigning user roles. The DMROs and SMO perform these functions.

5.8.8 USER SUPPORT

5.8.8.1 USER SUPPORT REQUEST

Submit maintenance requests to the help desk. The help desk will log the request and forward it to the MAC Support Team. The MAC Support Team may assign the request to the appropriate SMO technical expert or DAC for further processing.

5.8.8.2 ENHANCEMENT REQUESTS

Submit requests for enhancements to the system administrator. Include the following information in the enhancement request:

(A) MAC Functional Area – for example, Mix Design, Company Profile, Sample Data Entry, etc.
(B) Requested enhancement
(C) Any comments or details describing the enhancement request
(D) Person's name making the request

5.8.9   ROLES AND RESPONSIBILITIES

5.8.9.1   DISTRICT MATERIALS AND RESEARCH ENGINEERS

The District Materials and Research Engineer (DMRE) designates the principal DAC and backup DACs. Each DMRO will have at least one principal DAC and as many backup DACs as needed. The DMRE must request access and training for DACs. The DMRE or DAC assigns user roles such as DMO Asphalt, DMO Concrete or Program Maintenance User (PMU).

5.8.9.2   STATE MATERIALS OFFICE

The SMO designates user(s) assigned SMO roles such as system administrator, SMO technical unit, SMO Asphalt, SMO Concrete, Designer. In addition, the system administrator is responsible for assigning the system roles of DAC; Director, Office of Construction; or Director, Office of Materials. The SMO Functional Coordinator is primarily responsible for developing and maintaining MAC documentation for system requirements and training.

5.8.9.3   TRANSPORTATION TECHNOLOGY

The Central Office of Transportation Technology provides technical support for MAC, assists with technology projects and maintenance of the application.

5.8.10   TRAINING

The Department provides MAC training. There are training documents and videos available on the MAC training website: https://www.fdot.gov/materials/mac/default.shtm.

Additional training is being developed and provided through the FDOT Learning Curve portal. Non-FDOT personnel can access MAC Training through the Department's Learning Curve.

5.8.11   FORMS

These forms are available from the Department's Procedural Document for users who need to request MAC access with an FDOT User Id account:

1) *Form No. 325-060-08a, Acceptable Use Agreement (AUA) – Employee/Staff Aug*

2) ***Form No. 325-060-08b Acceptable Use Agreement (AUA) – Consultant/Outside Agency***